Southern University at Shreveport LA LABORATORY SYLLABUS Biol 105L Fall 2010 1 Credit Hour

Instructors:

Dr. G. Brown, Associate Professor

Dr. B. Hollis, Assistant Professor

Classroom: (218) Classroom: (222) Office: Rm. 11/239 Office: Rm. 9/236

Office Hours: See posting on office door

Description

Biol 105 lab covers topics supplemental to lecture material. This lab will cover activities that involve an introduction to genetics and evolutionary trends. A survey of the five kingdoms will be covered including bacteria, algae, fungi, plants and animal phyla. A general comparative study of invertebrate and vertebrate systems will also be done. Prerequisite: Biology 104

Required text

Handout materials will be provided in class one week before the scheduled lab. It is strongly recommended that you read the material in anticipation of the actual lab period.

Laboratory Handouts

- Laboratory Safety Rules
- Genetic Problems
- Genetic Traits List
- Evolution Pictures
- Classification Charts
- Guidelines for Writing Lab Reports

Additionally, the laboratory manual below is required:

Manual:

• Mader, Sylvia, Biology Laboratory Manual, 10th Edition, McGraw Hill, 2010

Evaluation (grading)

Points for each lab will vary depending on the activities covered. Grades will be based on:

Lab reports
Technical performance
Lab notebook

Laboratory reports

Each student will need to submit a lab report. The lab report is due no more than one week after the lab is completed.

Technical performance/lab notebook

Any scientist must be able to function in a laboratory. One way to increase marketability to a potential employer is to have good lab practices; this includes technical skills and ability to keep a well-organized lab notebook. Over the course of the semester you will be evaluated on your lab skills and your lab notebook. Techniques and a guide on how to keep a lab notebook will be provided at the beginning of class.

The final grade will be based on performance on lab reports, lab manual, technical performance, and exams. After all scores are totaled, your average will be determined by your calculated percentage of the highest possible. An average between:

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90 –100 = A	80 - 89 = B	70 – 79 – C	60 - 69 = D	Below 60 = F
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Attendance

Attendance is mandatory. There are no make-up labs. If you must miss lab because of an official college function, please inform the lab instructor <u>BEFORE</u> the function.

Schedule of Laboratories

WEEK 1	TOPIC No Lab	
1 2	Laboratory Safety/Survey of Laboratory Equipment Genetic Terms/Punnet Square	
3	Mendelian Genetics	
4	Human Karyotypes	
5	Evidences of Genetics	
6	Laboratory Exam	
7	Mechanism of Evolution	
8	Cell Structure and Function	
9	Bacteria and Protists	
10	Plants/Vascular and Nonvascular	
11	Survey of Invertebrates	
12	Survey of Vertebrates	
13 14	The Human Systems Laboratory Exam	